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UNITED STATES OF AMERICA.



ACT
OF
INCORPORATION
OF THE
MECKLENBURG
GOLD MINING COMPANY,
IN THE
STATE OF NORTH-CAROLINA;
AND
REPORT
OF THE
SECRETARY OF THE COMPANY,
ON THE
STATE OF ITS CONCERN;
WITH
ACCOMPANYING DOCUMENTS.

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OFFICE OF THE SECRETARY OF THE
1887

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AN ACT, &c,

Be it enacted by the General Assembly of the State of North Carolina, and it is hereby enacted by the authority of the same, That a Gold Mining Company shall be established in the county of Mecklenburg, State of North Carolina, by the name and style of "THE MECKLENBURG GOLD MINING COMPANY," with a capital of Three Hundred Thousand Dollars, in shares of One Hundred Dollars each, and that Vincent De Rivafinoli, William J. Alexander, James Treat, Anthony Dey, William Renwick, Walter Mead, Stephen Sicard, Lewis Veron, Timothy Veron, George W. South, and William Witzel, and all those who now are, or shall hereafter become their Associates, are hereby authorised to open Books at Charlotte and such other places as they may direct, for the purpose of receiving subscriptions for shares in the said Company, having advertised such intention in the Farmers' and Miners' Journal, and such other papers as they may deem necessary for twenty days ; and keep said books open for ninety days with power to re-open the same in like manner, if the amount of Capital shall not be subscribed.

Be it further enacted, That the Commissioners under whom the books are to be opened for subscription, shall meet at the expiration of ninety days after opening books as above provided, and compare their books, and if it shall be found that the sum of One Hundred Thousand Dollars shall have been subscribed, the Commissioners aforesaid shall forthwith advertise in some newspaper, and request a general meeting of the Stockholders, at such place and time as they shall appoint, and if Stockholders representing a majority of all the stock subscribed shall attend such meeting either in person or by proxy, the said Stockholders may proceed to appoint seven directors, one of whom shall be president of the Company, and the said Directors

shall be appointed for the term of one year, and until their successors are appointed.

Be it further enacted, That it shall be the duty of the directors within ten days after their appointment as aforesaid, to meet and appoint one of their body President, and to execute such bonds, as may be required of them by the Stockholders, for the faithful performance of their respective duties while in office.

Be it further enacted, That when the sum of One Hundred Thousand Dollars shall be subscribed in manner aforesaid, the subscribers, their successors, and assigns shall be and they are hereby declared to be, incorporated into a company by the name and style of the "Mecklenburg Gold Mining Company," and by that name may sue and be sued, plead and be impleaded, before any Court or Justice of the Peace, and shall so continue for the term of twenty-five years, from the ratification of this act, and shall be capable in law, to have, purchase, receive, possess, enjoy, and retain to them and their successors, lands, rents, tenements, hereditaments, goods, chattels, and effects of whatsoever kind nature or quality, and the same to sell, grant, demise, alien, or dispose of, and shall possess all the rights and privileges of a corporation or body politic in law, and also may make, have, and use a common seal, and the same to break, alter, and renew at their pleasure, and may make all such bye-laws, rules and regulations not inconsistent with the Constitution and laws of the State, as shall be necessary for the well-ordering and conducting the affairs of the company.

Be it further enacted, That if the whole of the capital stock shall not be subscribed within the first ninety days, and the sum of One Hundred Thousand Dollars shall have been subscribed, and the company organised, as before provided in that case, it shall be lawful for the Stockholders to re-open the books and receive subscriptions for the balance of their Capital Stock.

And be it further enacted, That if more than the Capital stock shall have been subscribed for within the ninety days, then it shall be the duty of the Commissioners to reduce the subscriptions in fair and equal proportions, reserving to each subscriber at least one share, and if the stockholders shall re-open the books, and more than the capital stock shall be subscribed, then the stockholders shall reduce the subscriptions to the capital stock in the manner above stated.

Be it further enacted, That the stockholders of said Company shall meet once in each and every year, at some convenient place in the county of Mecklenburgh, either in person or by

proxy, and at such general meeting, if a majority of the stock subscribed be represented, the said stockholders may proceed to elect their officers, fix their salaries, take bonds from the officers for the faithful performance of their duties in office ; make all necessary bye-laws, rules and regulations, for the government of said company, and shall have power to do all other acts necessary to be done to carry into effect the object of this act, and the stockholders in general meeting shall be entitled to vote according to the following scale (to wit,) each stockholder shall be entitled to one vote for each share he may hold, as high as three shares, and one vote for every three shares as high as thirty shares, and one vote for every five shares above thirty shares, by him or her held at the time of such general meeting.

Be it further enacted, That stockholders in said Company who together own or represent one-third of the stock subscribed may on any emergency, call a meeting and shall have power at such meeting to remove any officer of the Company from office, for misconduct or other sufficient cause, and to make such rules and regulations as may be necessary for the government of the company, until the next annual meeting of the stockholders.

Be it further enacted, That the said Corporation are to apply their capital to mining only, and all its powers and privileges are granted, and to be exercised for the purpose of mining, and the said corporation is hereby declared incapable in law to carry on any operation of Banking, or to direct its funds to any other purpose than mining.

Be it further enacted, That the full amount of every subscription, shall be paid in at the time of subscribing, or shall be secured by bond or note of the subscriber, signed by himself and two good securities, neither of whom shall be a corporator, and if a surety shall afterwards become a corporator, the President and Directors shall require another security in his place, and in case such requisition be not complied with, the President and Directors shall forthwith collect the money due on said bond or note ; the money secured by said bond or note, shall bear interest from the date, but shall be paid into the treasury of the corporation in such sums and at such times as the President and Directors shall, by resolution, ordain and require.

Be it further enacted, That no subscription shall be less than one share, and in case any subscriber shall fail to pay in the amount of his subscription, or to give his bond with two sureties as aforesaid, as by this act provided; that the said subscriber and any or every Director conniving at, or assenting to such failure, shall be liable to any creditor of the company for the

full amount of such subscription, to be recovered from such subscriber and Director or Directors, their Executors or Administrators jointly and severally, by an action on the case.

Be it further enacted, That the Corporation may make contracts, or become bound by any instrument or security or agreement in writing, signed by the President, or by any person duly authorised by him, or by the President and Directors ; but the legal estate, in the lands, tenements, and hereditaments aliened by the Corporation shall pass to the purchaser only by deed under the Corporation seal.

Be it further enacted, That any legal process against the corporation may be served on the President, and in case he be not in the state, or evades service, service of the same on any Director, and in case there be no Director in the state, the service on any stockholder shall be sufficient.

Be it further enacted, That it shall be the duty of the said Corporation to keep a full and fair record of all their proceedings in books procured for that purpose, and shall be bound to produce said records in any court of justice in this state, when required so to do by the court. It shall be the duty of the said corporation, to preserve all bonds or notes given for stock in said Company, and to enter such payments, as shall from time to time be made on such bonds, until they are fully discharged.

Be it further enacted, That it shall be the duty of the said corporation at the first court of Pleas and quarter sessions to be held for Mecklenburg, after the organization of said company, and annually thereafter to present to the said Court a full and fair statement of the full amount of stock subscribed, the amount which has been paid in cash, and the amount for which the President and Directors hold the bond of the subscribers or stockholders, and also the amount of other debts due to the Corporation, and the name and places of residence of the several stockholders.

Be it further enacted, That the President and Directors shall prescribe the manner in which stock shall be conveyed or transferred from one stockholder to another or to any other person, and that the stock shall be deemed and held as personal property and go in succession to executors and administrators.

Be it further enacted, That all the property of the aforesaid Corporation of whatever kind or nature, whether lands, negroes, machinery, stock, goods, bonds, or other effects shall be liable to the satisfaction of the debts of the corporation,

and shall be subject to be levied on by execution, attachment, or other legal process, and sold.

Be it further enacted, That this act shall be in force from and after the ratification thereof.

To the President and Directors of the Mecklenburg Gold-Mining Company,

New-York, July 10th, 1833.

GENTLEMEN,

In consequence of the repeated and earnest solicitations of J. Humphrey Bissell, Esq., the Manager of the Mecklenburg Gold-mining Company at Charlotte, in North Carolina, I visited the establishment in June, 1833. Before I left home I supposed myself incapable of investigating the subject; and intended only to remain a very short time—but having a large property at stake, and by the encouragement received from Mr. Bissell, I was induced to enter into an investigation of the concerns, at least, so far as I was capable. I feel happy in saying that I now have the pleasure of submitting to you the result of my labours; and if on examination you can feel as I do on the subject, and the necessary measures be adopted with success I shall not despond of making our establishment equal to any other in the United States, now known, for *permanent benefit*, if not in the high price of the stock to be sold in the market, yet in its revenue, producing a regular income to an extent that will warrant a respectable advance on the cost or par value of the shares.

The bad management of the Chevalier de Rivafinoli regarding that concern up to the time when he was forcibly dispossessed by the Directors, in the Autumn of 1832, is not unknown to you, and I believe cannot be concealed from the public.

I have now the satisfaction to say, that it is under the management and direction of J. Humphrey Bissell Esq., who has personally a large interest at stake in the success of the concern, and if integrity, unremitting industry, economy, and a knowledge of the business, and true interests of the Company can give us wealth we shall at least deserve it if we do not obtain it. I have witnessed, to my entire satisfaction, these qualifications in Mr. Bissell, and know no man to whom I would sooner confide my interests in that concern than to him. I shall now proceed to a detailed statement of our concerns.

The Chevalier de Rivafinoli in the month of August, 1830, procured from J. H. Bissell, S. G. Barker, and C. G. Memminger leases for 35 years of certain mills and mines in Mecklenburg county, North Carolina; he also procured one or more leases of other mines from other persons all of which have been transferred to the *Mecklenburg Gold Mining Company*. The Company are incorporated by an Act of the Legislature of the State of North Carolina, under which the Company went into operation, in June, 1832. In December, 1832, the Company purchased all the estate and interest of Samuel G. Barker, in fee simple, in the mills and mines in which he had any interest in North Carolina; and the Company now have an undivided interest in the following real estate, as well as interest under the leases, namely;

	Acres.	Roods.
The one half part of St. Catharine's Mills and Land,		
about	550	
one half of the Charlotte mine and land,	119	
one half of O'Farrell's mine and land,	110	
one third of Felt and Walkin's mine and land,	110	
one third of Banes' mine and land, and which includes the benefit of a lease,	8	16
one third of Maxwell's mine, and also 1-4 of an acre adjoining	31	
one third of Baker's mine also adjoining including Campbell's also	7	1-2
one third of Benton's mine	about 200	
one third of Cooper and Hurtchingson's mines	46	1-2
one third of M. Clures mine	20	
one third of Griffiths' mine, about 1 mile from Capp's	3	1-2
The whole of M. Clure's mine, which Mr. Bissell has recently purchased, the title to which is in the name of A. Dey and which I hold for the benefit of the Company if they choose to take it and pay me	10	

Acres 1156.

The Company are also the owners of the unexpired lease of the celebrated Capp's mine, which had, I am credibly informed, yielded upwards of \$200,000 value, in gold, before it was purchased by this Company.

The whole of these mines I visited, save one; most of them have merely been opened and tested partially. I visited many other mines within the range of seven miles of St. Catharine's

mills, talked with many of the owners and found an universal disposition, on the part of the owners, either to sell or lease their mines to our Company, believing that the Company were better able to conduct them than the owners could. Some of these Mines are known to be very valuable, and have produced large quantities of gold. They have been worked on a small scale, principally with slaves, and until they come to water when the owners wanting skill or capital, and perhaps both, found they could not work them farther to advantage. The peculiar advantages which our Company possess as relates to milling powers not only by steam, but especially by water, renders it almost certain that sooner or later all the mines within seven miles of Charlotte, will come under the control of our Company in one shape or another, so that it may be said we have an inexhaustable fund from whence to draw our ores.

After obtaining all the knowledge on the subject which several days rigid attention to the business enabled me, I considered it advisable to obtain the practical results of the establishment that I might submit the same to the Directors, and through them if they considered it advisable to the Stockholders for their information, that they might understand more satisfactorily the value of their property.

Hence you will find that I have directed my questions, not only to the chief manager but to the sub-managers, and superintendent miner, and have gleaned from them all the information that my limited knowledge, hastily acquired, would enable me. I refer you to the annexed queries and answers as affording, in my opinion, a developement not of mere theories, but facts and opinions, formed upon results, which, on careful examination, I think will convince any one, that we have a very valuable concern.

From the information I received at Charlotte and from what fell under my own observation, I made the following summary under the immediate inspection of the chief manager, namely :

The steam mill—drives at present 12 Arastres, that revolve from 7 to 9 times in a minute, and each Arastres will grind now, on the average, 15 bushels of ore per day—in all say,

180

N. B. By changing the two driving wheels, which will be a small expense, the present Arastres will make from 13 to 15 revolutions more in a minute than at present, by which each Arastre will grind say 5 bush. in addition per day, which will make in addition the difference in all, 60 bushels per day—This, I am informed, is not conjecture, as the Mallard Creek mills which revolve from 13 to 15 times in a minute, each grind easily 20 bushels per day, and in better order.

The Water power at St. Catharines' Mills, drives 2 Arastres, that mill 30 bushels of soft ores per day,

30

Drives 12 stamp heads in water with the bowls for washing (called Tyrolese Mills) making 4 sets, each set pulverizing 25 bushels and washing same,

100

Drives 12 dry stamp-heads at present. It is intended to change these to stamp in water, and make them *in connection with bowls and wheels already completed into Tyrolese mills*, which it is expected will be done by the first of August, 1833, say as above.

100

The head manager informed me that these dry-stamps would do 100 bushels of soft ores per day, and of hard ores from 75 to 80 bushels per day; he also observed that the quantity would differ according to the quality of the ores, whether hard or soft, and would be from 375 to 475 bushels per diem.

Mallard Creek Mills—The Dam belonging to these mills was broken, in April, 1833, with the freshets which prevailed so generally throughout North Carolina, they were in the use and occupation of our concern at the time. The Capp's Company offer at the present time to put these mills in order again for a reasonable compensation to be paid when our Company are in successful operation.

These mills can now do 60 bushels of ore per day, and may in one week be so improved as to do 75 bushels per day.

75

485

Suppose you have the <i>poor</i> quality of ore that will yield only 50 cents to the bushel,	485 50
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And you estimate 26 working days to the month,	<hr style="border: 0; border-top: 1px solid black; margin-bottom: 5px;"/> 242 50 26
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	1455 00
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	4850 00
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	<hr style="border: 0; border-top: 1px solid black; margin-bottom: 5px;"/> \$6305 00
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And then deduct the expenses according to the accounts furnished me, and which I now exhibit to the Board—Thus,

The expense of milling per month, at St. Catharines is from \$750 to \$800	\$800
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Mallardcreek milling	60
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	<hr style="border: 0; border-top: 1px solid black; margin-bottom: 5px;"/> 860
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The mining establishments estimated will range from \$2000 to \$2500 per month, say	2440 3300 00
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	<hr style="border: 0; border-top: 1px solid black; margin-bottom: 5px;"/> \$3005,00
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That will yield say, \$3000 per month and at that rate \$36,000 per annum nett, and will yield on a capital of \$230,000 more than 15 per cent per annum.

You will observe this calculation is made on poor ore, worth only 50 cts. to the bushel. The Superintendent Miner in his report annexed, says that the poorest quality of ores is not more than 20 grains, equal to about 80 cents per bushel. When Rivafinoli had the direction it was a common thing for him to grind ore that yielded from 1 to 2 dwt. per bushels, and often more; now every grain that the ore yields beyond 50 cents. per bushel, is clear profit, and the dividend therefore may be increased according to circumstances.

In order to illustrate this more fully, I may add, that if the ore yields 1 *dwt.* to the bushel, the net profits to be divided, will be \$8,175 per month, and \$98,100 per annum; and on calculation it will be found that if the ore should yield 2 *dwt.* to the bushel, it would nearly repay in one year the whole capital of \$250,000, which is required at the present time, of which sum only \$50,000, requires to be taken.

The above statement is predicated upon works already erected

and in operation, and upon works so far completed, that a very few weeks can bring the whole into operation. There are moreover preparations made, and at a very small comparative expense, by which the works may be extended so as to drive 72 additional wet stamps, and Tyrolese mills by water, so that we can grind from 1500 to 2000 bushels of ore per day under the same superintendence we now have there.

In my opinion it is advisable that the Directors should open a new subscription to the stock of the Company, for \$50,000, to be taken up among the stockholders, if they wish any more or from any other quarter, and my reasons for it, are these :—

Since the discharge of Ch. Rivafinoli, the Company	
have purchased the Estate in fee from S. G. Barker,	
for	\$20,000 00

Rivafinoli had run the Company in debt to a	
large amount, and it became necessary to borrow	
monies for the relief of the Company. A. Dey,	
loaned the Company	5,000 00

Other individuals loaned to the extent of	3,131 00
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With these two last sums it was believed the Company could get along, but on further development, it appeared the concern was committed by Rivafinoli to a much larger amount.

In addition thereto the mill dam in April was	
carried away ; other expenses were incurred in	
putting up the Tyrolese mills, and extending the	
works ; so that it may fairly be considered we owe,	
in Charlotte, an amount not far short of	12,000 00

40,131 00

There is due to the former lessors of Capp's	
mine, for the unpaid balance of purchase of their	
property	2,000 00
J. Bissells' draft on A. Dey, due August,	1,000 00

Total debts of the Company,	43,131 00
Surplus,	6,869 00

\$50,000 00

In addition to the amount of debts we ought to raise at least the further sum of \$6869; as a surplus fund for the present, to meet contingencies ; to perfect the works, but especially that we might

have the means of purchasing gold and saving a very large premium. This sum will suffice for the above mentioned contingencies in as much as the second and third payments on the purchase of Barker's share are payable at one and two years, from 1st January, 1834, but I would prefer that we should be out of debt.

Onevery dwt. of gold we now make, we are losing from 4 to 6 per cent, for want of funds—The gold we make goes into the hands of our banker at Charlotte, at the price of gold there, to secure advances already made and making weekly by him ; and this cannot be taken from him until he is entirely paid off. And if we had surplus funds to the extent of \$10,000, we might turn it every 60 days in the purchase of gold, at market price there, and save the rate of exchange here.

I respectfully call the attention of the Directors to the consideration of the suggestions made in the annexed reports, as soon as it shall be ascertained what course the Company will pursue.

All which is respectfully submitted by

ANTHONY DEY,

27 NASSAU-ST., NEW-YORK.

No. 1.—*Letter, dated 22d June, 1833, from Anthony Dey to Titus L. Bissell, the Sub-Manager at St. Catharine's Mills, and his Answer thereto, dated 26th June, 1833.*

Charlotte, N. Carolina, 22d June, 1833.

It is requested of Titus L. Bissell to make a report on the state of St. Catherine's Mill.

In that report I wish you to state how long you have been attached to the establishment, and what has been your duties ? What number of Mills are employed, and how driven, whether by steam or water.

How many bushels of ore can be milled in a day, at the present time ? Are preparations making for an increased number of mills, to be driven by water or steam, and how many ? What improvements and enlargements are contemplated, and at what probable expense ?

What is the difference in expense of milling 300 bushels of ore by steam or by water ? Suppose you had a sufficient supply of ore, worth 50 cents per bushel, what would be the monthly profits ? State, particularly, how the expenses arise, and to what they would amount, as the result of your expe-

rience, before the Chevalier Rivafinoli went into possession, during his administration, and since his dismissal.

Will thank you to state what would be the monthly profits on ores milled, that would yield 1 *dwt.* per bushel, supposing each set, say 12 stampers attached to the Tyrolese Mills, to mill 100 bushels of ore per day.

Have you, hitherto, had a full supply of ore ; and what, as far as you know, or from information received, do you believe is the prospect of a supply of ore in future ?

I will thank you to make any suggestions in relation to the concern, and to its management, that may tend, in your opinion, to the benefit of the stockholders : *and lastly*, I wish, so far as it is possible, you would make numerical statements and estimates, fitting them to the variations of the modes of working by steam and water, and let such estimates be based on actual or practical results, which have come under your own observation.

I am, sir, very respectfully, yours,

ANTHONY DEY.

St. Catharine's Mills, June 26th, 1833.

To A. Dey, Esq.

DEAR SIR—In reply to your favour of the 24th. I came in the service of Bissell and Barker, in April 1829, previous to any Gold Mill on the place. During their time it was my business to keep their accounts, pay both for this place and Charlotte Mine, keep account of lost time, receive, still, and melt the gold, &c. ; and part of the time I was a practical miller, tending my regular watch, for the purpose of becoming better acquainted with the ores, and doing my other duties besides.

Since the Chevalier took possession, in November, 1830, I have filled the same situation, with the exception of the time, Mr. Woelner was here, who kept the milling books and saw to the Mills, and melted the gold.

There are now 12 arastre mills in full operation, which go by steam ; 12 dry stamps, by water ; 2 wash mills, by water ; and a new saw-mill, by water.

The Gold Mills, by steam, are able to consume 12 bushels of hard, and 15 bushels soft ores, each mill, every 24 hours ; 168 bushels per day, average ; or 4,368 bushels per month, average.

In addition to these there are the old arastre mills, all ready and only waiting for the string fore lay, which was carried away

by the flood, and will be shortly ready, which are able to consume 24 bushels each day, of 24 hours, or 624 bushels per month.

The new wet stamps and Tyrolean Mills start to-morrow : what they will consume is impossible for me to say ; but, taking the highest estimate I can get from those used to working them for tin ores, in Cornwall, it will be 75 to 100 bushels for 12 stamp heads, each 24 hours, or 2,600 bushels per month.

That will make the consumption,	by Engine,	4,368
-	-	-
-	by Old Mill,	624
-	-	-
	Tyrolean,	2,600

7,592 Bush.

Or, in round numbers, 7,600 bushels per month.

I should think we could consume more instead of less ; indeed, had we a full supply of ores, I should not hesitate to say we could consume 8,000 bushels per month. The improvements contemplated by the agent are shortly to stop the engine, and add dry stamps so as to make that establishment independent of the Water Mills.

To put in the place of the dry stamps 12 wet stamps, and Tyrolean bowls ; then, if ores are abundant, to add still 12 more stamps and bowls to the big wheel, on the opposite side of the dry stamps.

In estimating of milling cost, we have always taken the average monthly expenses, and divided by the number of bushels we *could* mill. So in July, 1831, soon after the engine started, when we could consume the same quantity of ore we do now (independent of the Tyrolean Mills,) if my memory serves me, it cost over 50 cents a bushel ; in July, 1832, Mr. Woelner and myself made a calculation, and took a good deal of pains with it, it then cost 35 cents.

Now, taking the average, say \$850 per month, and say we consume 4,992 by engine, and old arastres, this is about 17 cents per bushel, in addition to the continual erection of buildings and machinery, and keeping what there are in repair.

I think you can run the whole establishment, including Tyrolean mills, quicksilver, &c. for \$850, in that case, allowing the Tyrolean mills to consume 100 bushels per day, is the average of not quite 11 cents per bushel upon all milled by engine, arastres, dry stamps, and Tyrolean mills.

If you estimate, for Tyrolean mills, independent of the rest of the establishment, and say it consumes 100 bushels per day, it cannot cost over 5 cents ; for 5 dollars per day must be suffi-

cient for three hands, quicksilver, tallow, oil, and wear and tear.

The engine (including dry stamps and wash mill), the wood, tallow, quicksilver, oil, wear and tear, cost about 24 dollars per day, or about 15 cents per bushel.

But, by this calculation, we have no new works going up, only mechanics enough just to keep all in order.

As regards the monthly profits, it is impossible for me to give you an estimate (whether the ores yielded 6 grains or 26 grains), as I have nothing on which to found. There is no book-keeper for the general concern. I do not know at all the expenses of the mines, and to get at such an estimate accurately, it would be necessary to find out the average expense of the mines, and the average quantity of ores they could raise.

The expense of hauling from Capp's, O'Farrel's, and Nolan's, cost about 7 cents per bushel.

The hauling from Oliver's, and from Maxwell's, about 10 cents. From Charlotte, and from Jimmison and Rudisell, about 3 cents, From Cooper and Hutchinson, 4 cents.

By referring to a copy of the expense book which you have you will see the expenses arise from hire of hands, and purchase of materials and provisions. I am unable to give you the current expenses of either mines or mills, by the month, previous to 1st November, 1830, as Bissell and Barker's purchases of lands and negroes, erection of buildings, expense of mines and mills, all went together; they kept a general account for every thing.

With the 4 Chilian Mills, which ran 7 days in the week, we used to consume about 3,000 bushels, on an average, per month, and at a very trifling expense, as the wash mills were attended by negro women, and two of the Chilian mills; there was but one white man attached to the milling. The milling could not cost 10 cents a bushel, when taken separate from the general concern.

The expenses during the Chevalier's time I am just as ignorant of. There are no books here to shew what they were.

Nor could I give you a *correct* monthly account of the expenses of this place during his time, as the officers were always paid from the general office; the quicksilver was almost or always purchased by that office, and frequently the corn and bacon.

I could give you an exact account of all the moneys which passed through my hands, in February, 1831. I paid out for expenses on this place 2,305 dollars; in March, 2,600 dollars; but this was not near the true expense of this place.

We have never had what I should call a full supply of ores since November, 1830. It is true we have had a temporary supply frequently, but no stock to last a length of time.

The best stock, and the best ores we ever had, were produced from Charlotte and Rudisell Mines, from March to July, 1832; during that time the gold turned out more per bushel, and we made more gold during that time, than ever before or since in the same space, and the mills went more regular.

As to future supplies of ores, you are much better informed than I am. I seldom go to the mines, and never went below at Capp's; and if I did should know nothing about it except what was told me. Whenever I ask any one from Capp's Mine about ore, they always say—plenty, plenty.

As you request my suggestions of any alterations which may be of benefit to the Company. Expecting shortly to leave, and not to see the suggestions go into effect, I can have no interest except what appears to me to be for the good of the Company; besides, these are merely my private opinions, and there are other and wiser heads than mine, who will not do them if not for the best.

I would suggest the necessity of a book-keeper for the general concern, whose duty it should be to keep a regular set of books, classifying and assorting all the different expenses of each establishment, and keeping the expenses of each place distinct; to keep cash-book; raise the needful; and upon the presentation of each officer's account of expenses, on the 1st of every month, give them the money: or, make the book-keeper paymaster for the whole concern, and have but one pay day each month; to render a consolidated account, with the returns of the gold, &c. every month, to the president of this company. The book-keeper's duty should be attached to some other duty, as it will not take his time.

I would put six negroes immediately into the timber land purchased by the Chevalier, and which is obliged to be cleared by December, or leave what is not cut off; let these hands cut fire-wood, bracing timber, ranging timber, saw-mill logs, house logs, and rails timber, and let it all be hauled off before December.

My opinion is decided, that these six hands, beginning 1st July, are able to cut all the fire-wood, rails, timber, saw-logs, &c. that we shall want for a year; they will be able to clear the land by December. They will then be able, after December, to fence up lands with the rails they have cut; and in spring go to planting; these same six hands will be able to take

care of 150 acres of all kinds ; they will make hay, corn, and oats, abundance for this place—and, with a good season, much more than we can use ; besides the great advantage of placing us beyond the combination of the country people, which is sometimes a great evil.

There is 30 acres of excellent meadow land, if it was fenced.

I would not alter any mill before 1st of August.

What few mill-wrights we have, have more than they can do to finish off the works begun, by 1st August : the dam ; the string fore bays ; shingling the carpenter's shop (which is injuring, as it now stands) ; weather-boarding the ends of the Tyrolean mills, and keeping the mills all in good repair, will be as much as they can do till the 1st August. By that time we shall be able to pronounce with certainty what the Tyrolean mills will do, which as yet we cannot, having nothing but books, and hearsay to go by.

After 1st August, if the Tyrolean mills answer all that is said of them, then turn the mill-wrights immediately to putting up 12 wet stamps, and Tyrolean bowls, where the dry stamps now are. Stop the engine, which will stop the wash-mill, and very much reduce the milling expenses.

I would mention the great convenience, advantage, and profits of a grist mill, a cheap one, merely for grinding corn. I would recommend it to be put up in the old gold mill, after the other works are done (say the projected new wet stamps) ; this will save a man, horse and cart, one day each week, *from each place*, to go to mill ; a large quantity of corn, which now goes for toll ; and would be a source of profit from the toll we should get for grinding from the country. It would require but one negro to attend it.

The expense would be trifling, as the water wheel is already up ; the stones were cut and paid for by Bissell and Barker, and will cost only the hauling about ten miles. The spindle, bushes, hopper, &c. from the old mill are all saved, in excellent order, and ready ; and perhaps much of the gearing of the old mill could be used.

I should not think it could cost \$300, even if it was done by contract ; but, as it is proposed, it would be done by our mill-wrights, whenever they had spare time from more important business, and the monthly expenses would not be increased.

The corn and meal would be carried to the different mines by the return ore waggons, and would cost nothing.

I would again urge what I have often before, the necessity of

insuring the engine buildings, the old mill-house and dry stamping mill, and the new building with Tyrolean Mills, against fire.

It would be well for the Board to fix upon some merchant in New-York for an agent, to purchase what few things we want on commission. Some one not in a heavy business, who would take pains, and would have time to attend to our orders.

If there is no one who has a prior claim on the Company, I would recommend Mr. P. Pettibone, who used to keep an Agency Office, about 95 Maiden-lane, up stairs. He is a poor, honest, industrious young man, (a Yankee,) who is extremely well calculated to do the business, and I know would do it quick, well and honest.

Your obedient servant,

T. L. BISSELL.

No. 2.—*The following Questions were submitted by A. Dey, in the month of June, 1833, to A. Raw and Edward H. Bissell, to answer respecting the Mining Establishment in Mecklenburg County, North Carolina, belonging to "The Mecklenburg Gold Mining Company."*

1. What is your age, profession, and how long have you been engaged in mining?

2. How long have you been engaged in the mines in Mecklenburg County? And at what particular mine are you now employed, under the management of J. Humphrey Bissell, Esq. the chief manager for the Company?

3. State what are your views in relation to the ore coming from the respective Shafts at Capp's Mine; and what the ores will yield; and particularly, in what state is the Jane vein, at the lowest level—and what are your views as to its extent? How are the ores as to quality, and expense of obtaining?

4. Have you worked at the Charlotte Mine: what was the quality of its ores: what state is it in at the present time: what, in your opinion is best to be done with it? Can you form any estimate of the probable expense of sinking the shaft at the Charlotte mine, per foot; and at what point do you suppose it will intersect the veins from the other shafts. If the main shaft is sunk to any particular depth that you may name, will the veins, in your opinion, yield such a quantity of ore that it will justify the expense? State your views at large in relation to the matters enquired about, and any other views you may have.

5. State your views in relation to the Rudisell mine. If the

main shaft is sunk at Charlotte Mine, will it drain the Rudisell Mine? What are the indications at Rudisell Mine? Does appearances justify further working at that mine, *for present profit*: what was the quality of its ores, and what did they yield per bushel?

6. What is your opinion of Maxwell's mine?

7. State any other matter or thing, or any opinion you may entertain of the present management of the concern, and how it can be improved or benefitted. If the Company are disposed to confine the works at Capp's mine to such points as would be soonest profitable, what, in your opinion, would be the best plan of operation?

Answer of Edward H. Bissell.

To Anthony Dey, Esq. Secretary of the Mecklenburg Gold Mining Company.

SIR,

Agreeable to your request, I take pleasure in offering a few remarks upon the present state of the mines now in the possession of your Company, not giving them as the opinion of a *miner*, but as the best of my judgment, founded upon what little knowledge I have obtained in mining during a residence of nearly six years at the mines and mills now worked by the company, as clerk and superintendent.

Of *Charlotte Mine*—in its present state, I know very little, except what I have heard from the miners, as it is sometime since I was engaged there. They say that the vein in the Catharine Shaft was left good—that in Marie Louisa not so much so. Certainly, if the mine is to be proved, it will be necessary to carry down the Engine Shaft, as the machinery, &c. would be valuable at another place, and without sinking the shaft it would be wrong to remove it, as it would leave the mine improved, and in case of the mines being good, every thing is in excellent order for carrying on the work. The cost of sinking the shaft, say for 50 feet, might be done, taking the risk, I should think, for \$12 per foot, though the present hardness of the shaft would be an objection to the miners taking it by contract, as it is probable it would soon become softer, and they would ask a price upon the supposition of its being hard all the way down. I do not think the mining part would cost much over that sum, as it could be done by day's labour, if no other way; or by giving

a contract for a short distance, at a higher, and afterwards at a lower rate. Should Charlotte mine prove good, it has many advantages over most of the other mines, and which would confine the expenses to nearly the *mining* part, as the buildings and machinery are sufficient to work to a large extent, and its proximity to the mills is a very important article in its favour. I would certainly recommend the mine to be properly proved within the coming year, and then if not good abandon it, and remove the machinery. The ores are good, yielding generally about a dwt. per bushel, and the labour of assorting the ores is so small as to require but one hand for that purpose.

Rudisell Mine—I have never had anything to do with. During the time it was worked I was at the mills. The ores were good, giving from one to two dwts. per bushel, with very little assorting. Every part of the vein above the lowest work is said to be nearly all taken out, and the vein in the bottom to be small and poor. I do not think any plan can be devised to render this mine of profit. The sinking of the engine shaft at Charlotte mine *will not* drain the Rudisell mine of water: were that the case it might be proved some lower, but I do not think it is possible so to do; and to put a large engine up at such a place would be running a desperate risk.

Maxwell's Mine—I consider one of the most promising in the county. The vein is large from 2 to 8 feet wide, and the ore I think will give 3-4 dwt. per bushel, average. It is finely situated for drainage by an adit, and the only thing against it is the distance from the mills, but that will be more than balanced by the benefit of working it without machinery, by its being free of rent, and by its affording a supply of ores from near the surface, either of which is sufficient to render the working of the mine advisable. The clavo is long, and being entirely new, and thereby affording an opportunity to be properly and advantageously worked, I should be loth to exchange the prospect of immediate profit for that of most mines which I have seen.

McClure's Mine, near Capp's, is so new, and so entirely unproved, that of it little can be said. There are two veins on the place, besides the one already opened, which is small, and not worth over 1-2 dwt. per bushel; but it is my belief that the veins not opened will be found better than that which is being worked. It would be well to continue the mine until it is seen how it will do, as the working of it is not expensive, and the ores will nearly pay for the labour.

Capp's Mine, the *old vein*, is in a good state for working, as

the galleries of communication have been cut, which saved the labor of some hands, which at the commencement of our working the vein we were obliged to employ rather disadvantageously, on account of the manner in which it had been previously worked. Since that work has been finished the vein has been very good until within the last week, since when it has become very poor, and unpromising. Some very fine ores have been taken out from the vein the last few weeks, but the hardness of the vein, and of the rocks which surround it, render it a slow and difficult, as well as an *unprofitable* work. The vein is very uncertain, all of the ore lying in pockets, which are good for a few days only, no dependance can be put upon, nor calculation made of a spot, however fine it may, at first cutting, appear. Were it an open vein the changes of the size of the vein, and the quantities of the ore would not be of so much importance, as in a vein such as this, requiring great labour, and constant blasting, to go a small distance. The engine shaft has been sunk since we are here 20 feet, making the whole depth 115 feet. In sinking the shaft two stripes of vein were cut, *neither* of which were of *any value*. There is a possibility of the main vein, or largest stripe of the vein, not having been cut, but yet remaining in the bottom of the shaft. Most of the ore from that part of mine has been taken out to the depth of one hundred feet.

The Jane Vein—I can safely say is an excellent and extremely promising one in its present appearance. It has been worked to the depth of 50 feet and the vein in the bottom of the level is larger and better than above. The whole distance of the clavo, the vein, *unlike the old one* is more uniformly good and permanent, and is from one to three feet in size. It is an open vein, and very easily worked, never as yet requiring a blast. The ores are generally soft, mixed however, at times with pyrites, and will yield upon an average a *dwt.* per bushel. An engine shaft has been already commenced and sunk 60 feet with the intention of cutting the vein at 120 feet depth. When this shall be down, which will be in the course of six weeks, we shall have a length of 100 *feet vein* to take out above us from the bottom of the shaft to the level above on the vein. This will be sufficient, should it prove as good below as in the level to furnish ores for a long time. All the ores as yet taken from the Jane vein have been above the 50 feet level. The expense of working *Jane vein* compared to the old one is small, and another important advantage it has is, that it can be worked by the diggers of the country, and the establishment is not liable to be stopped by a turn out of the English miners for higher

wages, as they will at times do, now by their being *seduced away by other Companies*: besides, in cases of necessity, negroes could be employed upon this vein to a good advantage. Upon the Jane vein from the extremity of the clavo has been driven a tunnel to the distance of one hundred and fifty feet or more, and we yesterday, cut what appears to be a *new clavo*, which has a very fine appearance. The vein is already from 1 to 2 feet wide and as fine ore as any from the old clavo of the vein. This will be very encouraging, as should a good body of ores be found here, the vein is untouched, *nothing* having been taken out *above*, which leaves that part of the mine entirely fresh for operation. Some specimens of *ores* from this new place, I have enclosed in a box with others, from different parts of the mine for your inspection.

Isabella Shaft—is another part of the mine as yet unmentioned, which has given some excellent ores at times, and from which I yet expect to see good returns. The vein is probably a part of the *main* or *old vein* but changed very materially as to the character of the vein and of the ores, it being some distance from any workings. The vein is open and easily worked, and should it prove good, it will be a valuable addition to the Jane vein.

Should the Company be disposed to confine their works to those parts which would be soonest profitable. I would from present appearances advise,

The suspension of the works upon the old vein. This I should consider as tending very materially towards a profitable prosecution of the concern.

The driving of the two tunnels upon the Isabella vein, as at present.

The employment of the miners now at Capp's in sinking the engine shaft, which they are at present doing, and in taking ores from the *old and new clavos on Jane Vein*,

The working a few hands at *McClure's*, and the working of *Maxwell's mine*.

By doing so, I cannot but believe the affairs of the Company will soon be in a prosperous condition.

Respectfully, your obt. Servant,
(Signed.) EDWARD H. BISSELL.

To Anthony Dey, Secretary of the Mecklenburg Gold Mining Company at St. Catharine Mills.

REPORT

of Anthony Raw, Superintendent Miner at present engaged by the Mecklenburg Gold Mining Company at Capp's Mine, Charlotte, N. C.

At the request of Mr. A. Dey, Secretary of the said Company,—I do not fail to give the following Report.

Since July 1st, 1831, I have been engaged by the said Company. Since 1811, untill now, I have occupied myself with nothing else (excepting 1815, when I was a soldier,) but with mining business. From 1811 to 1826, I was in my native country, viz. Germany, in the mines on the Rhine, of Saxony, of the Harz and of Westphalia. At the commencement of the year, 1828, I engaged myself to an English Mining Company of London, in order to go to Mexico, as Superintendent Miner, where I was for 3 years with the company at Tlalpuhahua.

All the above stated facts, I can, in case it should be desired, affirm by certificates.

In the year 1829, I quitted Mexico, went to the coal region of Pottsville, in Pennsylvania, was there until June, 1831, and since that time, I have been here.

The present nature of the chief vein of Capp's mine is this:—I need not mention that the vein below the clay ground has been very rich of good ore. But now it seems, as if the said *clavo*, in this country called pocket, failed entirely at a depth of 90 feet below the clay; in the northern part of the shaft where the steam engine works, as well as in the southern part. South it reaches a greater depth, under the old pump shaft, but even of this the end has been reached. The said shaft of the chief Capp's vein, where a steam engine works, has been sunk 20 feet deeper during my stay since October, 1832. The vein has been broken through once in the shaft, and once at a greater depth in the bottom of the shaft, 114 feet below the clay ground by means of a tunnel where the vein at the lowest place contained but 1 seam of ore, 3 inches thick, the vein is here 20 feet thick and consists of quartz or flint slate. At a greater depth of the chief vein there might be found perhaps another rich ore, *clavo* or pocket, but as it is uncertain, and as there appeared moreover in sinking the shaft, and likewise at the Charlotte mine a solid hard rock ("Grawacke" in the German Miner's,

language) to sink 1 foot of which would cost, besides all the other expenses, at least \$20. I would not advise the Company, under the present circumstances, to make this experiment, as the ore contains, on average, not more than 20 grains per bushel. My proposal therefore is to cease for the present in working the main Capp's vein, as well as to let the steam engine stand still. North of the above main shaft there is another vein known by the name of Anthony; this is a very flat vein from 5 to 6 feet thick, the ore of which I do not estimate richer than 5 or 6 grains per bushel: the same vein has been richer at the surface than it is at the depth known at present: and for the vein just mentioned, I should likewise not advise to lay out any sum of money. But the vein lying towards east, called Jane vein, has been dug up since I was here in a depth of 50 feet below the clay ground, for the length of almost 300 feet. At this depth a clavo of ore has been found being from 6 inches to 5 feet thick, and is now at the present depth clearly to be seen for a length of 150 to 160 feet: this vein was through the whole length of the tunnel richer below, at the bottom, than above. Moreover, a clavo has been discovered, within 2 days, in the same vein, 100 feet distant from the former, the ore of which is to-day 2 feet thick, and I believe that this clavo will be likewise very good. For this vein a new shaft has been commenced which is by this time 47 1-2 feet deep: the steam engine has been brought hither from Rudisell's Mine and placed upon this Shaft. The shaft cuts the vein at 120 feet, there remain therefore 72 1-2 yet to be sunk which may be performed in less than six weeks, and will cost, if the rock remains the same as it is now, not above 5 to \$600. It is beyond any doubt but this vein will give a great profit as soon as the steam engine shaft is accomplished. The ore of this vein I estimate at 2 dwt. per bushel.

Concerning the Charlotte Mine,—I was there only 5 weeks, in the year 1831, in August and September. I don't know how rich the ore was there. At present the whole mine is full of water, and all the upper works have sunk, which, I expect, will be the same case with the lowest (excepting the steam engine shaft). Of this Mine, I can therefore say nothing certain.

At Rudisell's Mine, I was at work almost from the beginning to the end, and I dare say that this mine is not worth to be ever re-opened. Here I remark—I believe it to be quite certain that a vein runs through south of Rudisell's mine in the adjacent old field, which has never been examined by the Chevalier de Rivafrinoli, it may be that the same is worthy of an experiment.

Should the shaft of Charlotte Mine ever be sunk deeper, it never will make dry this mine without a tunnell to be dug from Charlotte Mine to Rudisell's Mine.

Maxwell's Mine.—My opinion of this mine is the following : I have inspected this Mine only once and believe that this mine will likewise prosper, if the Directors would make up their minds to let it be wrought upon. For, from 5 to 600 feet, over the vein, in the clay ground, there is every where good ore to be found, a sure sign that the vein below must be rich. Besides the beautiful situation which is here for mining operations, the hill, in which the vein arises, is at least from 90 to 100 feet elevated, so that the water which is about the vein may very easily be led off by a tunnel of 100 feet long. Upon this vein three small shafts or pits have been driven down several years ago, the ore of the deepest whereof I have likewise seen, and think it to be very good. The vein is said to be 4 to 5 feet thick : here are therefore no expenses for steam engine to be paid for several years, in consequence of which this mine must pay already, in the 1st month after the works of it are commenced, all expenses, and leave yet a surplus.

We have opened, since a month, in the neighborhood and half mile south east of Capp's Mine, a vein on the plantation of Mr. McClure, which in a depth of 35 feet is already dug up for the length of 60 feet. The vein is 3 feet thick, and the ore towards the South is on average half foot thick. I do not say that this vein will be as good as Jane vein or Maxwell's mine, but that it will be profitable is not to be doubted.

In order to bring the concerns of this mining establishment in a short time to such a stand, that the stockholders of this company may also have profit of it, only the three following mines ought, after my opinion, for at the present time to be wrought upon, viz :—

1. Jane vein, at Capp's mine,
2. Maxwell's Mine, and
3. McClure's Mine.

I hope the Directors of the Company will give credit to my Report, and the consequence will show that I have said the truth.

(Signed)

Yours respectfully,

ANTHONY RAW.

Capp's Mine, June 26th, 1833.

The following Questions are submitted to J. H. Bissell, Chief Manager of the concerns of "The Mecklenburg Gold Mining Company," at Charlotte, in North Carolina.

1. What is the power at present employed at St. Catharine's Mills? How much is driven by steam? How much more can the present power by steam be increased, and at what expense?

2. How much is done by water? How much more can the present power by water be increased, and at what comparative expense?

3. What is the relative advantage of steam and water, and how can they be most beneficially employed at the present time? What is the difference in expense between reducing the ores by water power, or by steam power, and how in your opinion ought the same to be used to the best advantage of the company?

4. What is your present supply of ores, and what prospect have you of a supply in future.

5. What has been the general character of the ores furnished by the mines? What per bushel has been their yield? What is the lowest yield per bushel that will justify running the mills in order to pay expenses.

6. Under the existing power of reducing ores, suppose that the ores will yield only 50 cents per bushel—what would be the monthly profits of the concern to be divided among the stockholder's, and what sum, supposing the ore would yield 1 dwt. per bushel?

7. What plan of operation do you deem most advisable to pursue, and what are your reasons therefor?

To the questions put to me as manager of the concerns of the Mecklenburg Gold Mining Company, I would respectfully answer in their order.

To 1 & 2. That the milling power employed at St. Catharines' mills is a steam-engine, rated at thirty horse power, which draws 12 arastres of 9 feet each in diameter, this being the largest dimensions I believe the arastres are ever made of; six feet being more usual, while those of 9 feet are termed in Mexico "of the first class." The engine is capable of doing more work than it has yet done, and the excess of power might be employed in driving the arastres rather faster than they now go, and by the addition of a dry stamping mill, of heads enough to supply pounded ores, in lieu of being dependent, as now, upon

the water, and thus losing any peculiar advantage of steam-power.

The water power at present employed in reducing ores at St. Catharine's Mills is, *First*, Twelve stamp heads employed in preparing hard ores for the arastre mills ; *Secondly*, Two arastres called the old mill ; *Thirdly*, A new and efficient mill of twelve heads for stamping in water to which the Tyrolean bowls are attached, and which have recently gone into action ; *Fourthly*, Two water wheels which are now employed in washing ground ores, but which may be made to drive 10 stamp heads of 50 lbs. each or heavier.

The Mills in actual operation, and without looking forward to any changes will reduce somewhat as follows :

	Bush.
12 arrastres by steam, . 15 bush. each per day. . . .	180
2 " " water, . 12 " " " "	24
Wet stamping, and Tyrolean, (say)	100
	<hr/>
	304

The amount of ores reduced at St Catharine's Mills, may be augmented with no great expense, and in a short time to between four and five hundred bushels per day, and the water power unoccupied will then be so great and constant, as to admit of being used in new mills, to carry the consumption of ores up to one thousand or more bushels per day, if there should be occasion. Also, in possession of the company, are the Mallard Creek mills, which, when repaired, will be capable of reducing about 75 bushels per day, during nine or ten months of the year. There are at that establishment four arastres and dry stamps to supply. In reference to an increase of the consuming power at St. Catharine's Mills, it is very material that the extensive and expensive appendages and accompaniments of a great milling establishment have been erected and arranged upon a scale which will not need any increase, however exemplified, may be the mere milling part for reduction of ores. I refer to the substantial and comfortable dwelling houses which are sufficient for the accommodation of an hundred or more white persons and officers ; besides excellent houses for black hands, to the number of 70 or 80 more ; stables, store-houses, carpenter's and blacksmith's shop's, an excellent smelting and assay-house, a new and first rate saw-mill, &c. &c.

The outlay at St. Catharine's, upon what may thus be termed the appendages of the mills has been since the place first came into possession of Bissell & Barker, very great, as they believed

it justified by the advantageous locality of the mill place, situated as it is, without any water power within a great distance, able even to compete in the smallest degree, with its business of milling ores, and being in the best vicinity of mines known in the United States. Nor should it be omitted that the work done under the administration of M. de R. was of the best kind. Compared with this, any other concerns yet in this country, are so inconsiderable as to seem but the mere first beginning of an establishment, as you know from your own observation.

3d.—As to the relative advantage and expense of steam and water power, I annex a statement of the engine's daily expenses, which are and must be, in every place, very nearly the same.

Estimate of cost of milling by steam:—

2 Engineers, at \$47 ac. 20.	\$2 25c.
2 Firemen	0 88
1 Wood-wheeler	0 37
5 Millers	2 88
Wood	6 0
Oil and candles, &c.	0 75
One head-washer	1 12
Six black washers	2 25
Blacksmith, mill wrights, superintendence, drag stones	1 0
Horse, cart, and man	1 0
Wear and tear of machinery, engine, bed stones, and tubs	2 0
	<hr/>
	\$20 50

Now, by water power, I suppose the same quantity of ore might be milled for five dollars. There are, however, other advantages in having a large water-milling concern above that of steam. In the first place, experience will show, whatever may be the existing impression of those who are now in the business, that no one mine will, for more than a year or two, supply daily 150 bushels of ore. I do not say such a thing cannot be, but it has not been here, or elsewhere, for a long time, and one exception is not to be a rule. Now, if an engine be put to any *given mine*, generally, it must pump not only a supply of water for its own use, but for washing, a far greater quantity; and wells are wholly inadequate, as will be seen. If then the mine ceases to supply ores enough, ores from the vicinity must be transported, and there is the expense of transportation, and expense of steam to work the ores. This is so important that I

consider a great milling concern, by water, will command ores form a distance of ten miles, and work them as cheap as can be done, upon or near the spot of extraction. Besides this, no mining concern can get on well without a saw-mill; and, as an instance, I think Mr. Smith, at the Orange Mine, told me his lumber bill had been, in somewhat more than a year, above \$2,000. I know the Capp's Company's bill, yearly, was more than \$1,000. Now the timber from a saw-mill, by water, costs very little, being sawed upon shares of one-half, and it is sent by return ore waggons. With these views I have regarded the St. Catharine establishment as of necessity to command the mines in a vicinity of nine or ten miles about: nor do I apprehend any rival establishment can compete to her disadvantage. Sooner or later, by working ores upon toll, or by lease or purchase of mines, upon their own terms, the ores will be milled from a long circle round. Probably the grand mistake made by M. de R., and the source of all his misfortunes here, was to expend so enormous a sum upon an engine, while there was water power so over-abundant for all purposes. As the engine is here, by using both powers, when there is need of it, certainly the expense will be lessened, by average with the water power: nor need it be constantly worked.

In reply to question fourth, I would say that a supply of about 150 bushels per day may be reasonably expected from Capp's, provided nothing occurs to intercept the work—such disarrangement of the engine is now less to be feared than before, or the want of miners who may perhaps leave the mine as has been the case recently to compel higher wages. This evil will lessen gradually as competition takes place by new comers. The inconvenience is now a serious one, and may defeat the best computations. It is not improbable much more may be afforded from Capp's, but the safe way would be opening some other of the numerous mines nearer to the mills, to rely not wholly upon any one place. Should the Charlotte shaft be driven downward probably a supply of ore to amount of 4 or 500 bushels, might be had regularly from the two, worth an average of 80 cts; and at an expense of about \$2000 per month. In case Davidson's mine should be leased, the supply would be greater and the average more, rather than less. My impression is, that the Charlotte mine, Davidson's and Clapps', would satisfy the expectations of all concerned. If Davidson's cannot be had, other mines may be substituted—but new establishments, though small, cannot be formed additionally while the Company's affairs are in their present fluctuating uncertainty. It is not a month, or a year which

will carry the Company's enterprizes to the point, they should go, but time, patience, and above all the power to withstand temporary embarrassments and losses, incident to all mining enterprizes, should be possessed. This done gradually, the mines of the vicinity will fall into their possession, upon their own terms, and by a command of the circle of mines of 7 or 8 miles, success equal to the most sanguine hopes will be *insured*—For by dependence upon single mines, no *very considerable* quantities of ore can be had a long time. Notwithstanding we hear of inexhaustable veins and hundreds of thousands of bushels of ore, experience, as before observed, will show no single vein capable of such large drafts upon it. Experience will also show the folly of such extravagant calculations upon the value of ores as are current. And it is experience in those interested and in those employed, and the information of the population about a concern to mining views, which are preliminary steps of surely continued success. No company will be steadily prosperous by accident—They must pay one or all the price of knowledge more or less high, and I should lament to see others take at a low price what the present Company have paid dearly for.

As answer to questions five and six, I refer to a statement in your possession, which I do not join as the answers have been so much extended.

The answer to question seven, would depend entirely upon the footing more or less extensive, it will be determined to put the Company's affairs—and it is answered in a general manner above, and having explained so fully my views to you in a more minute and detailed manner than would now seem to be required, I refer to former communications to supply any present deficiency.

Very respectfully your obt. servant.

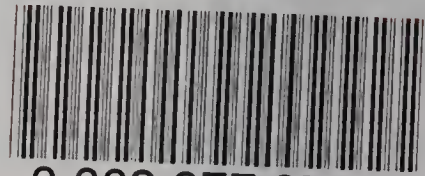
T. H. BISSELL.

St. Catharine Mills, July, 1833.





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